

# WASTE AND RESOURCE RECOVERY

## DESCRIPTION

The Waste and Resource Recovery Division (formerly the Solid Waste Division) provides responsive, cost-effective, and safe waste disposal services to county residents. These include bi-weekly trash collection, leaf and yard waste pickup, bulky waste collection, and household hazardous waste disposal. Working with the Central Virginia Waste Management Authority (CVWMA), the division also administers

curbside and drop off recycling programs throughout the county. Waste and Resource Recovery also oversees the operation of the citizen convenience centers (transfer stations) at two former landfill/transfer station sites, while simultaneously ensuring that all three of the county's closed landfills are properly managed and in compliance with environmental regulations.

## FINANCIAL ACTIVITY

	<b>FY2002</b>	<b>FY2003</b>	<b>FY2004</b>		<b>Change</b>	<b>FY2005</b>	<b>FY2006</b>	<b>FY2007</b>
	<b>Actual</b>	<b>Adopted</b>	<b>Biennial</b>	<b>FY2004</b>	<b>FY2003 to</b>	<b>Projected</b>	<b>Projected</b>	<b>Projected</b>
			<b>Planned</b>	<b>Adopted</b>	<b>FY2004</b>			
<b>Personnel</b>	\$1,472,540	\$1,417,100	\$1,417,100	\$1,484,700	4.8%	\$1,484,700	\$1,484,700	\$1,484,700
<b>Operating</b>	4,250,646	4,541,200	4,443,600	4,228,100	-6.9%	4,228,100	4,228,100	4,228,100
<b>Capital</b>	<u>133,575</u>	<u>5,400</u>	<u>5,400</u>	<u>0</u>	-100.0%	<u>0</u>	<u>0</u>	<u>0</u>
<b>Total</b>	\$5,856,761	\$5,963,700	\$5,866,100	\$5,712,800	-4.2%	\$5,712,800	\$5,712,800	\$5,712,800
 <b>Revenue</b>	 <u>2,176,336</u>	 <u>2,317,000</u>	 <u>2,398,300</u>	 <u>2,215,000</u>	 -4.4%	 <u>2,224,500</u>	 <u>2,234,000</u>	 <u>2,241,500</u>
<b>Net Cost</b>	\$3,680,425	\$3,646,700	\$3,467,800	\$3,497,800	-4.1%	\$3,488,300	\$3,478,800	\$3,471,300
 <b>FT Pos.</b>	 35	 35	 35	 37	 2	 37	 37	 37

Note: Two positions were created at the end of FY2002 effective July 1, 2002.

## BUDGET ANALYSIS AND EVALUATION

During 2002 contracts were renegotiated with outside vendors to allow for tamping services and other miscellaneous responsibilities to be assumed by the county at the two transfer stations. However in order to perform these tasks, two additional positions were created and one time capital had to be purchased. These contract renegotiations resulted in a substantial net cost savings to the county beginning in the second year (FY2004 and beyond). Therefore, the FY2004 Waste and Resource Recovery budget has been reduced by \$250,000 to reflect these changes.

The county is conveying the property of Fort Darling (former landfill site) over to the US Department of the Interior, Parks Service. This property was deeded to them in 1975; but the county

has maintained the site until now. The county will no longer be responsible for this site once conveyed.

Participation in the bi-weekly refuse collection program appears to be stabilizing. The actual number of collection route customers was 5,173 in FY2001 versus 5,050 in FY2002. The routes have been revised to become more cost efficient. However, the cost per household continues to rise due to operating cost increases such as fuel and vehicle repairs and salary and benefit increases. The FY2002 actual cost per household was \$3.98 per visit (or \$7.96 per month) as compared to \$3.89 per visit (or \$7.78 per month) for FY2001. For FY2004 it is anticipated that the number of customers will increase minimally while the cost per household is estimated to be \$4.16, or an increase of 4.5% over FY2002.

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In order to provide incentive for residents to recycle, the Division would like to begin publicizing this service. By utilizing the recycling service, citizens can reduce their own refuse disposal costs. Further, the expanded customer base will help to reduce the county's per household cost. Additionally, the county currently operates an office recycling program for county buildings, schools, and libraries. This reduces disposal costs for these agencies and increases recycling volumes.

The FY2003 budget included a countywide expansion of the curbside recycling program offering services to an estimated 12,211 additional homes (for a total of 84,000 homes). The additional FY2003 cost to offer this program countywide was \$294,000. However, the annual recurring cost will be \$196,300 (a savings of \$97,700 due to initial cost of recycling bins). Chesterfield County was the first county in central Virginia and only the second county in the state to offer locality wide curbside recycling to its residents. As new subdivisions or new sections of subdivisions open up in the county, additional homes will be added to this service which in turn increases the operating cost. The number of recyclable tons anticipated to be collected in FY2004 is 16,000, or a 51% increase over the FY2002 actual of 10,603 tons. This can be attributed to the anticipated increase of 6 pounds set out per home and the addition each year of new subdivisions into the curbside recycling program. While the direct estimated contract cost of the expanded recycling program equates to \$1.24 per household per month (for a total cost of \$1.2 million), the comprehensive cost (inclusive of departmental administrative and other operating costs) is anticipated to be an average of \$1.36 per home per month (for a total cost of \$1.4 million). Development of apartment and townhouse complexes is also expected to continue which increases the usage of the drop-off recycling programs at county transfer stations as these complexes are not included in the curbside program cost. This also causes an increase in the recycling operating cost with CVWMA.

A fee increase from \$48 to \$100 for the leaf vacuum service was included in the FY2003 budget. Currently, approximately 1,600 (or 1.9%) of the county's households utilize the leaf vacuum service. The FY2002-03 cost per service is estimated at \$280 and the county currently recovers \$100 per service or 36% of the actual cost. The FY2002-03 cost per household increased about \$80 over the FY2001-02

cost of \$200 in part due to inclement weather. The inclement weather prolonged the season that in turn forced increased vehicle rental costs to occur. This service is rendered for free to citizens who qualify for the tax relief program (an estimated 200 households in FY2004). The FY2004 budget also reflects a reduction in revenues and expenditures of \$162,000 due to the drop in the number of paying leaf vacuum customers. This loss of budgeted revenue is offset by a reduction in operating expenses for hiring temporary workers, leasing vehicles, vehicle maintenance, and other leaf program associated costs.

Both volume and tonnage at the transfer stations are expected to increase in FY2004. The number of customers is expected to reach 402,000 (up 5.8% from the FY2002 actual of 379,910 customers), while tonnage is expected to reach 31,000 (minimal increase of 1.2% from the FY2002 actual of 30,647 tons). While the number of customers at and the cost to run the transfer stations continues to rise, the fees have remained constant for several years.

During FY2004, the Information Systems Technology (IST) Department will be working on Internet initiatives that will involve adding additional customer capabilities to conduct business with the county over the Internet. Included in this initiative is Internet registration for refuse and waste collection services.

Waste and Resource Recovery continues to work with the EPA on a grant award for the micro-turbine pilot project. This pilot program includes installation of one micro-turbine to capture the methane gas at the closed Northern Area landfill site and generate electrical power. If successful, the county could add as many as 60 additional micro-turbines that would generate enough power to offset a large portion of current electrical usage fees for some county facilities.

The FY2004 operating budget includes \$12,300 to address the increase in radio maintenance charges resulting from the switch over to the 800 MHz radio system and \$40,800 to cover approximately half of the Consumer Price Index (CPI) increases in the FY2004 CVWMA contracts. A request of \$51,000 to sufficiently cover CPI increases in the FY2004 CVWMA contracts remains unfunded. The FY2004 budget also reflects an increase of \$60,000 in revenue anticipated to be received from a percentage of the

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sale of mulch by a private vendor located at the Northern Area Transfer Station.

The county contracted with a consultant to perform a management study and make recommendations for the future of solid waste programs. Recommendations from this study were reviewed by staff, the Solid Waste Advisory Committee (SWAC), and the Board of Supervisors in an effort to find the best method by which to satisfy the needs of the customers and the independent hauler companies that currently service the county, while making sure that the county resolves this issue in a fiscally responsible manner. Staff is currently rewriting the hauler's standards as per the Solid Waste Master Plan, SWAC recommendations, and from recommendations made by the hauler's committee. It is anticipated that these

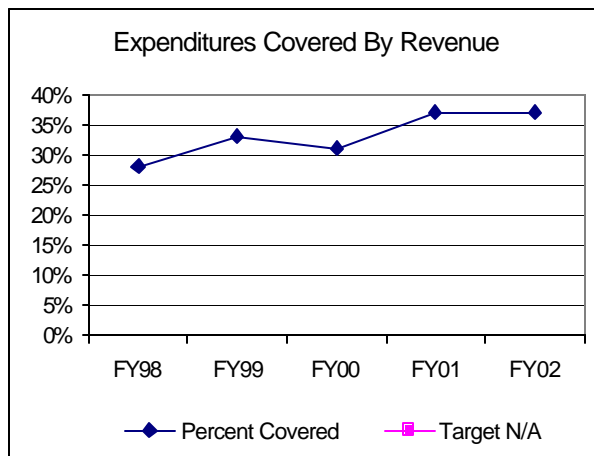
recommended changes will be taken to the Board of Supervisors sometime during 2003.

Included in the FY2004 Capital Improvement Program (CIP) is \$275,000 to address on-going maintenance needs at the three closed county landfills. Also included in FY2004 is \$300,000 to begin the design/engineering phase of the upgrade at the Northern Area Transfer Station. The Northern Area Transfer Station project will increase capacity provide better ingress and egress for this facility and construct a new office. The remainder of funding (\$1,583,500) is allocated in the FY2005 CIP.

The division is forming a team to look at a pay plan that will be based on increased training and skill levels as a way to encourage employees to continue their education and skill development.

## HOW ARE WE DOING?

- Goal:** Provide responsive, cost-effective, safe, and aesthetically acceptable solid waste collection and disposal. Supports countywide strategic goal numbers 1, 2, and 8
- Objective:** Provide financial integrity by reducing the amount of expenses covered by the general fund
- Measure:** Amount of expenditures covered by revenue



### Initiatives

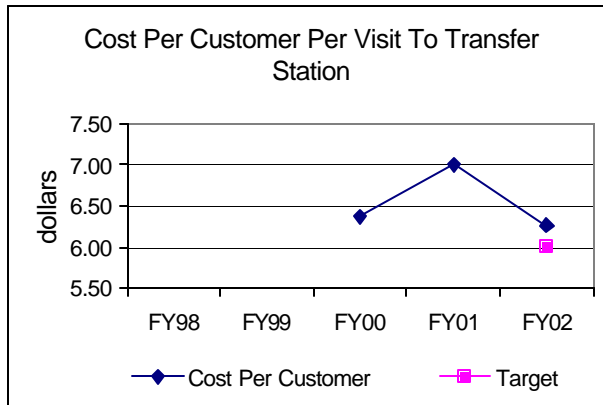
- Strategic long range solid waste management plan for the county
- Fee increases
- Increased customer base
- Renegotiated disposal contracts
- Wood waste partnership

# WASTE AND RESOURCE RECOVERY

**Goal:** Provide responsive, cost-effective, safe, and aesthetically acceptable solid waste collection and disposal. Supports countywide strategic goal numbers 1 and 2

**Objective:** Reduce the cost per customer at the transfer stations

**Measure:** Cost per customer per visit at the transfer station.



## Initiatives

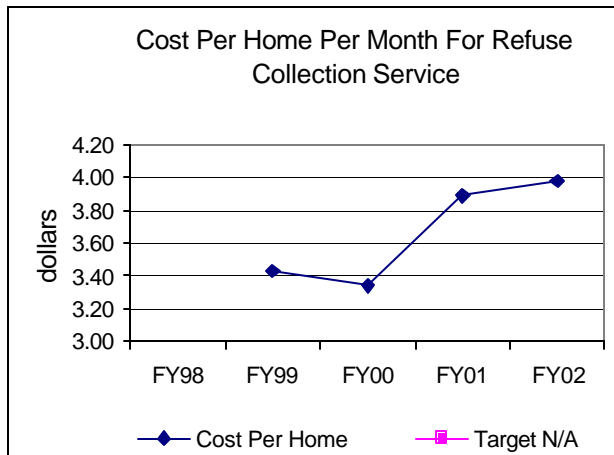
- Community educational programs
- Information distributed to new residents
- CIP Project for Expansion at Northern Area Transfer Station
- Only locality in region that provides full service household hazardous waste disposal
- Additional revenue from wood waste partnership
- Renegotiated disposal contracts

Note: Target not established for this measure for the period from FY2000-FY2001

**Goal:** Provide responsive, cost-effective, safe, and aesthetically acceptable solid waste collection and disposal. Supports countywide strategic goal numbers 1 and 2

**Objective:** Reduce the cost of service to each home for the county's bi-weekly pick up program

**Measure:** Cost per home per month for refuse collection



## Initiatives

- Community educational programs
- Information distributed to new residents
- Strategic long-range solid waste management plan for the county
- Increased customer base
- Increased publicity campaign

## WHERE ARE WE GOING?

Included in the FY2005-2010 Capital Improvement Program (CIP) is \$1,650,000 to address on-going maintenance needs at the three closed county landfills. Also included in FY2005 is \$1,583,500 to upgrade the Northern Area Transfer Station to

increase capacity and provide better ingress and egress for this facility as well as to construct a new office. However, even with this expansion, the continued growth in the northwestern quadrant of

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the county may result in the need for an additional transfer station located within that region.

The FY2005 Technology Improvement Program recommends funding \$81,000 for the purchase of an integrated waste and resource recovery management software system to schedule, route, bill, and manage all current programs. The new system will replace the current antiquated system and enable reduction of staff time spent on routing and refuse collection, resulting in an on-going part-time personnel cost savings of an estimated \$10,000.

In the next three to five years, it is anticipated that citizens will be able to pay for requested services over the Internet. This customer service enhancement will free up staff time now allocated to “walk-ins” and quarterly billings for services which in turn will enable the increase in administrative workload to be absorbed within existing staff.

There is an increasing need by residents to recycle electronic equipment (e-cycling). The equipment is now being disposed of at transfer stations. This equipment includes computers and monitors, printers, televisions, etc. It is likely that this issue will need to be addressed in future years. In fact CVWMA is looking at e-cycling opportunities for the near future.

Other future issues that may impact the department include unfunded mandates, decreasing or stagnant budgets while customer demands are increasing, and annual consumer price index increases in existing service contracts. Staff will continue to review revenue and fee structures to help offset increasing costs associated with waste and resource recovery.

Future year projections for personnel and operating remain constant.